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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 740124-183	
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		First Named Inventor Martin ELLER	
		Art Unit 3742	Examiner Fastovsky
Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal. The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.			
I am the <input type="checkbox"/> applicant/inventor. <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) <input checked="" type="checkbox"/> attorney or agent of record. 27,997 Registration number _____ <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____		 Signature <u>David S. Safran</u> Typed or printed name <u>703-584-3273</u> Telephone number <u>June 20, 2006</u> Date	
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.			
<input type="checkbox"/> Total of _____ forms are submitted.			

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.8. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Docket No. 740124-183

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Martin ELLER

Application No. 10/805,272

Filed: March 22, 2004

For: METHOD OF JOINING A ROD-SHAPED HEATING
ELEMENT WITH A TUBULAR CARRIER ELEMENT,
AND A GLOW PLUG INCLUDING A ROD-SHAPED
HEATING ELEMENT IN A TUBULAR CARRIER
ELEMENT

:
:
:
: EXAMINING
: GROUP 3742
:
: Examiner: Fastovsky
: Confirmation No. 8981
:
:

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Kathleen M. McManus

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The following is presented in conjunction with the simultaneously filed Notice of Appeal and seeks review of the rejections contained in the Examiner's Office Action mailed March 20, 2006, in connection with the above-captioned patent application, by a panel of examiners in accordance with the program established in the Official Gazette notice of 12 July 2005.

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Claims 1 & 2 has again been alternatively rejected under 35 U.S.C. §§ 102/103 based on the disclosure of the Bailey patent, either by itself, or in combination with the Magnetopuls brochure, with reliance upon MPEP § 2113 and the case of *In re Thorpe* with regard to the treatment of product-by-process claims as justification for not giving weight to the recitation concerning attachment by a magnetic deformation process. This rejection and the reference to product-by-process claims are still considered to both be inappropriate for the following reasons.

Neither claim 1 nor claim 2 can properly be consider a product-by-process claim as that term is normally used, and moreover, the more relevant case and comments contained in MPEP § 2113 state:

The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product. See, e.g., *In re Garnero*, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA 1979) (holding "interbonded by interfusion" to limit structure of the claimed composite and noting that terms such as "welded," "intermixed," "ground in place," "press fitted," and "etched" are capable of construction as structural limitations.) [Emphasis added.]

In the same manner that cited case held that terms such as 'welded,' 'intermixed,' 'ground in place,' 'press fitted,' and 'etched' are capable of construction as structural limitations," it is submitted that "magnetic formation" similarly defines structural limitations that should be considered in assessing the patentability of the present claims, i.e., that the product will be free of surface damage and the thermal effects of being heated during attachment.

Also relevant to the weight that should be given to process steps in product claims is the case of *In re Hallman*, 210 USPQ 609, 611 (CCPA 1981) in which it was held that:

Product claims may be drafted to include process steps to wholly or partially define the claimed product. In *e Luck*, 476 F.2d. 650, 177 USPQ 523 (CCPA 1973). To the extent that the process limitation distinguish the *products* over the prior art, they must be given the same consideration as traditional product characteristics. (Emphasis in original).

In the present case, the process limitation does distinguish the present invention from the prior art because, in Bailey's glow plug, the "undulated compliant sleeve 46 is brazed at its

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first alternate and second alternate undulations 48, 49 between the surface ignition element first end portion 32 and the body second end portion 28" (column 6, lines 51-55) and such a method of connection inherently results in the parts being thermally treated in the area at which the brazing is performed. In contrast, when parts are joined by magnetic deformation, no thermal treatment effects result since as noted above, the parts are cold during magnetic deformation. Furthermore, with brazing, the elements are merely joined at the bonding points so that the connection that results is resilient from bonding only the peaks of a undulated compliant sleeve, while the plastic deformation produced by a magnetic deforming process is rigid without the resiliency that is deliberately sought by Bailey since joining occurs along the entire interface of the parts.

These noted physical differences that inherently results from the difference between the manner in which applicant forms his attachments and the manner in which Bailey produces his, are clearly reflected in the amended language of the claims which indicate that the product is "in a plastically deformed state which is free of surface damage and thermal effects of being heated during attachment." In this regard, the panel's attention is directed to paragraph no. 3 of the Declaration Under 35 USC § 1.132 submitted on December 22, 2005, in which it is stated that "parts that are joined by magnetic pulse forming, inherently, will be physically different from parts joined by conventional welding, brazing, and press fitting." In the Examiner's Response to Arguments he has stated that this declaration is insufficient to overcome his rejections without any explanation as to why, and the Examiner's following statement that "the claimed product appears to be the same or similar to that of the prior art" is directly contrary to the factual evidence presented by way of the 132 declaration.

As for the alternative position taken by the Examiner that it would have been obvious to use magnetic forming in view of the Magnetopuls brochure, the Examiner has not met his burden of establishing a reason or motivation which would have made such a modification to Bailey's process obvious. However, contrary to the Examiner's conclusion is the fact established in paragraph no. 4 of the 132 declaration that magnetic pulse forming was not known for use in joining of parts of a glow plug prior to the present invention nor were the advantages of doing so known to those in the field of glow plug manufacture. Thus, it is submitted that there is no support for the Examiner's position and it is inconsistent with the facts of record.

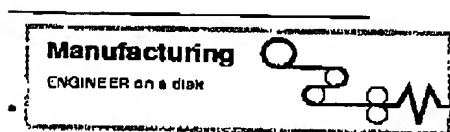
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For the above reasons, it is submitted that the subject matter of the claims cannot properly be considered to have been anticipated or rendered obvious by the disclosure of the Bailey patent, with or with the Magnetopuls brochure, so that withdrawal of the rejections based on the Bailey patent should be withdrawn.

Claims 1 & 2 were also rejected under 35 U.S.C. § 103, along with claim 3, based on the disclosure of the Hausner et al. patent with the Magnetopuls brochure. All of the comments and citations relative to the weight which must be given to the magnetic forming recitation of the present claims applies to this rejection as well, as do the comments concerning how the Examiner's positions are contrary to the evidence of paragraphs 3 & 4 of the Declaration Under 35 USC § 1.132 submitted on December 22, 2005. Thus, in a similar manner, the magnetic forming recitation of the present claims also structurally distinguishes the present invention from that of the Hausner et al. patent.

In particular, the Hausner et al. patent discloses that its parts are joined by a press fit type connection (paragraph spanning columns 1 & 2). A press fit connection (also known as an interference fit) inherently results in at least one of the parts that are so joined being scuffed because the inner part has an outer diameter that is slightly larger than the inner diameter of the part that it is being pressed into*, scuffing damages the corrosion protection of



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I. 36.1.3 INTERFERENCE FITS

- Interference fits always overlap and are used mainly for press fits where the two parts are pushed together, and require no other fasteners
- The figure below shows an interference fit for a hole shaft pair

(Footnote continued on next page)

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the joined parts (e.g., the force of being joined together would damage the coating applied to the plug body). In contrast, magnetic forming produces "a noncontact deformation of workpieces" (translation of Magnetopuls brochure, page 2) provides a uniformly rigid attachment over the entire area of the joint without any surface damage, as noted above.

Thus, the claims structurally distinguish their subject matter from that of the Hausner et al. patent and cannot properly be considered to have been rendered obvious by the disclosure of the Hausner et al. patent, so that this rejection should be overturned.

Respectfully submitted,

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(Footnote continued from previous page)

